



RentEase (FlatFinder) Client Side (JS)

Introduction

Application Name: "RentEase"

Case Study

A client has come forward with a proposal to create an application that aids renters in comparing their housing options. Renters often face the challenging decision of selecting a flat to call home for at least a year. The primary goal is to develop an application that allows potential renters to understand the trade-offs between flats they find relevant, thereby simplifying their decision-making process.

The application features a single user type—the flat seeker. This user is responsible for managing all flat data including insertions, updates, and deletions. The application will enable users to navigate through flat listings in a user-friendly manner, allowing them to mark and unmark their favorite flats.

Goals

The project is supposed to make the student gain confidence in developing a web application with the following features:

- Multiple Pages
- User-Friendly View
- Responsiveness
- Interactive
- Forms With Validation
- Local Store Management

Environments

- Browser
- Responsive: Desktop, Tablets and Smartphones

Technologies

The system has no server side. Only user interface.

- User Interface: HTML, CSS, JavaScript
- Database: localStorage



Soft Skills

The journey of this project will include practicing and evolving the following skills:

1. **Code Review and Peer Review Skills:** Practicing the ability to review someone else's code constructively, focusing on identifying areas for improvement while acknowledging strengths.
2. **Flag Raising Abilities:** Learning to raise flags effectively, addressing concerns about technical issues or project integrity in a clear and concise manner.
3. **Communication with Team Leaders (your trainer):** Developing skills in communicating with team leaders, including the ability to convey technical complexities in understandable terms and facilitate alignment and decision-making.
4. **Diplomacy and Feedback:** Cultivating diplomacy in providing feedback during code reviews, fostering a culture of constructive criticism and mutual growth within the team.
5. **Transparency and Collaboration:** Understanding the importance of transparency and collaboration within the team, ensuring that concerns are addressed openly and contributing to a cohesive project environment.
6. **Individual Problem-Solving:** Enhancing problem-solving abilities by independently tackling challenges encountered during the project, fostering resilience and creativity in finding solutions.
7. **Self-Learning Skills:** Emphasizing the importance of continuous self-learning to stay updated with new technologies and methodologies, enabling personal and professional growth in the ever-evolving field of full-stack development.

Entities

User

Name	Data Type
Email	String
Password	String
First Name	String
Last Name	String
Birth Date	Date

Flat

Name	Data Type
City	String

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Name	Data Type
Street name	String
Street number	Number
Area size	Number
Has AC	Boolean
Year built	Number
Rent price	Number
Date available	Date

Validation

User

- All fields are required.
- Data type check.
- Email must be in email format.
- Both names (first and last) must be at least 2 characters long.
- The derived age must be in the range of 18-120.
- Password must be at least 6 characters.
- Password must contain
 - Letters
 - Numbers
 - A character that is neither a letter nor a number.

Flat

- All fields are required.
- Data type check.

User Interface

All Flats Page

All flats page contain a table of all flats that the user inserted so far.

Each row in the table will hold:

- All of the flat properties as specified in the [Entities](#) section.
- A toggle button to mark/unmark flat as favourite.

In addition, the table will have filtering and sorting capabilities.

Filter options fields:

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1. City
2. Price range
3. Area size range

Sort categories:

1. City
2. Price
3. Area size

New Flat Page

- Inputs for all flat's properties as specified in the entities section.
- Save button

If all inputs are valid then the data is saved. New flat assigned as favourite flat.

Header

- Hello - User Full Name
- Log out Button
- Company Logo
- A menu for all pages

Home Page

The home page contains a table of all the user's favourite flats. The table structure will be the same as the table in [All Flats Page](#), besides one distinction: instead of a toggle button, each row will have a remove button. After pressing it the row will be removed from the table and the appropriate flat won't be considered to be the user's favourite.

Login Page

- Email input
- Password input
- Login button
- Register button

The first page that the user faces after opening the app. After a successful login, another login process will be required after 60 minutes. If the user is not registered yet he can click the "Register" button that will redirect him to the registration page.

Register Page

- Inputs for all user's entity properties as specified in the flat entity section.
- Password confirmation input.
- Register button.

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If all inputs are valid then the data will be saved. Successful registration will redirect the user to the home page. If the user forgets the password, he can reset it. But resetting the password will delete all user data.

Profile Update Page

- Same inputs as in the register page.
- Update button.

On this page, the user will be able to edit his details. If all inputs are valid then the data is saved. After a successful update, the user will be redirected to the home page.

Summary

Development Schedule And Order

Page	Days
All Flats	1
New Flat	1
Home + Header	1
Login	0.5
Register	1
Profile Update	0.5
Total	5

Good Luck!